REMARKS

Claims remaining in the present patent application are Claims 1 – 20.

35 USC § 102

Claims 1-6, 8-15 and 17-20 stand rejected under 35 USC § 102(e) as being allegedly anticipated by Pearce et al. (US 5,973,368; "Pearce"). Applicants have reviewed the cited reference and respectfully assert that embodiments of the present invention as recited in Claims 1-6, 8-15 and 17-20 are not anticipated or rendered obvious by Pearce.

Applicants understand Pearce to describe a monolithic class D amplifier. As used in Pearce and the semiconductor arts, the term "monolithic" means "constituting or acting as a single, often rigid, uniform whole." Thus, Pearce describes an integrated circuit that has no function beyond amplification. Consequently, Pearce does not teach, suggest or disclose embodiments in accordance the present that recite limitations beyond those of an amplifier, for example, limitations drawn to a microcontroller chip comprising a processor for executing program instructions, as recited by Claims 1-20. For this reason, Applicants respectfully assert that Claims 1-20 overcome the rejections of record and respectfully solicit allowance of these Claims.

Regarding Claim 1, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "a processor for executing program instructions" as recited in independent Claim 1. The rejection alleges that "control logic" of column

6 lines 20-22 comprise the recited processor. Applicants respectfully traverse. The referenced control logic is described vaguely in Pearce as merely for monitoring power in a QVDMOS power device (column 6, lines 22-24). However, Pearce is silent as to any suggestion that such "control logic" comprises a processor or executes program instructions. For this reason, Applicants respectfully assert that Claim 1 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Further with regard to Claim 1, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "an array of configurable circuit blocks" as recited in independent Claim 1. The rejection alleges that array 3.10 of Pearce comprises such a configurable array. Applicants respectfully traverse. There is nothing in Pearce to suggest that array 3.10, or anything else, within Pearce is configurable as claimed. For this additional reason, Applicants respectfully assert that Claim 1 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Further still with regard to the embodiment of Claim 1, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "an analog amplifier" "on a microcontroller chip" as recited in independent Claim 1. Applicants understand Pearce to describe "a monolithic integrated circuit... to drive the voicecoil of the speaker." (Abstract) As described previously, Pearce is silent as to any suggestion that the monolithic integrated circuit comprises a processor or executes program instructions as claimed. Further, Pearce is silent as to any suggestion that the monolithic integrated circuit performs any function commonly associated with a microcontroller. For this yet additional reason, Applicants respectfully assert that

Claim 1 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Claims 2-10 depend from Claim 1. Applicants respectfully solicit allowance of these Claims as they depend from an allowable base claim.

Further with regard to Claim 2, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "wherein the on-chip analog amplifier is situated adjacent one of the four corners" as recited in Claim 2. Applicants respectfully note that the rejection does not address this limitation and respectfully assert that Pearce is silent as to any preferential positioning of an amplifier relative to a corner of an integrated circuit. For this additional reason, Applicants respectfully assert that Claim 2 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Further with regard to Claim 4, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "a tristateable CMOS analog amplifier" as recited in Claim 4. Applicants respectfully note that the rejection does not address this limitation and respectfully assert that Pearce is silent as to tristateable analog circuitry. For this additional reason, Applicants respectfully assert that Claim 4 overcomes the rejections of record and respectfully solicit allowance of this Claim.

With regard to Claim 11, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "a processor for executing program

instructions" as recited in independent Claim 11, for the rationale presented previously with respect to Claim 1. For this reason, Applicants respectfully assert that Claim 11 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Further with regard to Claim 11, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "an array of configurable digital circuit blocks" as recited in independent Claim 11. Applicants respectfully note that the rejection does not address this limitation and respectfully assert that Pearce is silent as to any configurable digital circuitry. For this additional reason, Applicants respectfully assert that Claim 11 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Further still with regard to Claim 11, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "an array of configurable digital circuit blocks configured to perform a digital circuit function" as recited in independent Claim 11. Applicants respectfully note that the rejection does not address this limitation and respectfully assert that Pearce is silent as to any configurable digital circuitry, much less as to digital circuit blocks configured to perform a digital circuit function. For this still additional reason, Applicants respectfully assert that Claim 11 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Further yet with regard to Claim 11, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "an array of configurable

analog circuit blocks" as recited in independent Claim 11. Applicants respectfully note that the rejection does not address this limitation and respectfully assert that Pearce is silent as to any configurable analog circuitry. For this yet additional reason, Applicants respectfully assert that Claim 11 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Still further yet with regard to Claim 11, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "an on-chip CMOS analog amplifier" as recited by Claim 11. On the contrary, Pearce teaches a QVDMOS class D amplifier. As is well known in the art, a class D amplifier is not an analog amplifier, as a class D amplifier utilizes quantized signals. Further, as is well known in the art, QVDMOS is not CMOS. For these still yet additional reasons, Applicants respectfully assert that Claim 11 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Claims 12-17 depend from Claim 11. Applicants respectfully solicit allowance of these Claims as they depend from an allowable base claim.

Further with regard to Claim 12, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "wherein the on-chip analog amplifier is situated adjacent one of the four corners (of the chip)" as recited in Claim 12. Applicants respectfully note that the rejection does not address this limitation and respectfully assert that Pearce is silent as to any preferential positioning of an amplifier relative to a corner of an integrated circuit. For this additional reason,

Applicants respectfully assert that Claim 12 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Further with regard to Claim 15, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "a tristatable CMOS analog amplifier" as recited in Claim 15. Applicants respectfully note that the rejection does not address this limitation and respectfully assert that Pearce is silent as to tristateable analog circuitry. For this additional reason, Applicants respectfully assert that Claim 15 overcomes the rejections of record and respectfully solicit allowance of this Claim.

With respect to Claim 18, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "a processor for executing program instructions" as recited in independent Claim 11, for the rationale presented previously with respect to Claim 1. For this reason, Applicants respectfully assert that Claim 18 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Further with regard to Claim 18, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "an array of configurable digital circuit blocks" as recited in independent Claim 18, for the rationale presented previously with respect to Claim 11. For this additional reason, Applicants respectfully assert that Claim 18 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Further still with regard to Claim 18, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "an array of configurable digital circuit blocks configured to perform a digital circuit function" as recited in independent Claim 18, for the rationale presented previously with respect to Claim 11. For this still additional reason, Applicants respectfully assert that Claim 18 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Further yet with regard to Claim 18, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "an array of configurable analog circuit blocks" as recited in independent Claim 18, for the rationale presented previously with respect to Claim 11. For this yet additional reason, Applicants respectfully assert that Claim 18 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Still further yet with regard to Claim 18, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "an on-chip tristateable CMOS analog amplifier" as recited by Claim 18, for the rationale presented previously with respect to Claim 11. Further, Pearce is silent as to tristateable analog circuitry. For these still yet additional reasons, Applicants respectfully assert that Claim 18 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Still with reference to Claim 18, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "a switchable current source for selectively providing an increase in bias current... under control of the processor" as

recited by Claim 18. Applicants reiterate that Pearce does not teach, suggest or disclose a processor, for the rationale presented with respect to Claim 1.

Further, the rejection refers to shutting off the QVDMOS bridge if the current exceeds predetermine(d) limits. Applicants respectfully assert that one of ordinary skill in the art would understand a vast difference between turning off an amplifier as taught by Pearce and increasing bias current as recited by the instant claim. According to Pearce, the amplifier ceases function. In contrast, in accordance with embodiments of the present invention, an amplifier continues to amplify. For these additional reasons, Applicants respectfully assert that Claim 18 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Once more with respect to Claim 18, Applicants respectfully assert that Pearce does not teach, suggest or disclose the limitation of "on-chip analog amplifier is situated adjacent one of the four corners" as recited by Claim 18. Applicants reiterate that Pearce does not teach, suggest or disclose an analog amplifier, for the rationale previously presented with respect to Claim 11.

Further, Applicants respectfully assert that Pearce is silent as to any preferential positioning of an amplifier relative to a corner of an integrated circuit, and respectfully note that the rejection does not address this limitation. For these additional reasons, Applicants respectfully assert that Claim 18 overcomes the rejections of record and respectfully solicit allowance of this Claim.

Claims 19-20 depend from Claim 18. Applicants respectfully solicit allowance of these Claims as they depend from an allowable base claim.

CONCLUSION

Claims remaining in the present patent application are Claims 1 – 20.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Applicants have reviewed the following reference that was cited but not relied upon and do not find this reference to teach or suggest the present claimed invention: US 6,079,985.

Please charge any additional fees or apply any credits to our PTO deposit account number: 23-0085.

Respectfully submitted,

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